UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/039,653	12/31/2001	David A. Wyatt	42390.P13868	9274

			EXAMINER
8791	7590	06/13/2005	LAO, SUE X

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ART UNIT	PAPER NUMBER
2194	

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/039,653	WYATT, DAVID A.
	Examiner	Art Unit	
	Sue Lao	2194	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>21 March 2005</u>.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-12</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-12</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 1-12 are pending. This action is in response to the amendment filed 3/21/2005. Applicant has amended claims 1, 7.

2.   The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3.   The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4.(1) Claims 1-12 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 10/038,894. Although the conflicting claims are not identical, they are not patentably distinct from each other. For example, as to claim 1, Application No. 10/038,894 teaches a method, comprising: maintaining a global resource namespace (global resource namespace) including a list of a plurality child and parent resource

objects (child and parent resource objects) and a representation of the relationships (representation of the relationships) among the child and parent resource objects [Application No. 10/038,894, claim 1, lines 2-5]; and attaching an additional child resource object (perform attachment) to one of the plurality of parent resource objects [Application No. 10/038,894, claim 1, lines 2-3]. As to claim 2, it is met Application No. 10/038,894, claim 5. As to claim 3, it is met Application No. 10/038,894, claims 3 and 5. As to claim 4, it is met Application No. 10/038,894, claim 3. As to claim 5, it is met Application No. 10/038,894, claim 3. As to claim 6, it is met Application No. 10/038,894, claim 3 and that bandwidth is a typical resource. As to claims 7-12, note claims 1-6, respectively, for discussions.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, ie., all limitations in claims 1-12 of the instant application.

4.(2) Claims 1-12 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-32 of copending Application No. 10/040,606. Although the conflicting claims are not identical, they are not patentably distinct from each other. For example, as to claim 1, Application No. 10/040,606 teaches a method, comprising: maintaining a global resource namespace (tree) including a list of a plurality child and parent resource objects (parent and child objects and physical and virtual resources), wherein parent resource object representing physical and virtual resources, and a representation of the relationships (relationships) among the child and parent resource objects [Application No. 10/040,606, claim 1, lines 2-5]; and attaching an additional child resource object to one of the plurality of parent resource objects (tracking relationship, update record) [Application No. 10/040,606, claim 14]. As to claim 2, it is met Application No.

110/040,606, claim 14. As to claim 3, it is met Application No. 10/040,606, claims 14 and 16. As to claim 4, it is met Application No. 10/040,606, claims 14-16. As to claim 5, it is met Application No. 10/040,606, claims 14-16. As to claim 6, it is met Application No. 10/040,606, claims 14-18. As to claims 7-12, note claims 1-6, respectively, for discussions.

This is a <u>provisional</u> obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, ie., all limitations in claims 1-12 of the instant application.

5.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6.   Claim 1-6 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The language of independent claim 1 raises a question as to whether the claim is directed merely to an abstract idea that is not tied to a technological art, environment or <u>machine</u> which would result in a practical application producing a useful, concrete and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101.

Independent claim 1 does not appear to require any computer hardware to implement the claimed invention. These claims appear to define the metes and bounds of an invention comprised of software alone. There is no support (i.e., explicitly claimed computer hardware) in the body of the claims. Software alone, without a machine, is incapable of transforming any physical subject matter by chemical, electrical, or mechanical acts. If the "acts" of a claimed process manipulate only numbers, abstract

concepts or ideas, or signals representing any of the foregoing, the acts are not being applied to appropriate subject matter. In re Schrader, 22 F.3d 290 at 294-95, 30 USPQ2d 1455 at 1458-59 (Fed. Cir. 1994). Transformation of data by a machine constitutes statutory subject matter if the claimed invention as a whole accomplishes a practical application. That is, it must produce a "useful, concrete and tangible result." State Street, 149 F.3d 1368, 1373, 47 USPQ2d 1596 at 1600-02 (Fed. Cir. 1998). MPEP 2106. State Street required transformation of data by a machine before it applied the "useful, concrete, and tangible test." However, State Street does not hold that a "useful, concrete and tangible result" alone, without a machine, is sufficient for statutory subject matter. State Street, 149 F.3d at 1373, 47 USPQ2d at 1601.

Claims 1-6 are rejected under 35 U.S.C. 101 because the claimed invention, appearing to be comprised of software alone without claiming associated computer hardware required for execution, is not supported by either a specific and substantial asserted utility (i.e., transformation of data) or a well established utility (i.e., a practical application).

7.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-6 are also rejected under 35 U.S.C. 112, first paragraph. Specifically, since the claimed invention is not supported by either a specific and substantial asserted utility or a well established utility for the reasons set forth above, one skilled in the art clearly would not know how to use the claimed invention.

8.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-6 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are computer hardware necessary to execute the claimed software and render the invention operative.

9.   Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abbondanzio et al (U S Pat. 5,890,011) in view of Sankaranarayan et al (US Pat. 6,799,208).

As to claim 1, Abbondanzio teaches a method, comprising:

Maintaining (Hareware Resource Manager HRM) a global resource namespace (Hardware Namespace, fig. 3) including a list of a plurality child (parent device/bus entry) and parent resource (child device/bus entry) objects and a representation of the relationships (hierarchical, fig. 3) among the child and parent resource objects; and

Attaching (add/enumerate) an additional child resource object (entry for child device/bus) to one of the plurality of parent resource objects (parent device/bus). See additionally, col. 3, line 66 – col. 4, line 37; col. 3, line 66 – col. 4, line 8; col. 5, line 53 – col. 6, line 65.

Abbondanzio further teaches parent resource objects represent physical resources (I/O port address, I/O memory address, etc, col. 4, line 60 – col. 6, line 29), but does not teach parent resource objects represent virtual resources.

Sankaranarayan teaches resource objects and management, wherein resource objects represent virtual resources (bandwidth) in addition to physical resources (hardware device, ports). See col. 4, lines 38-47; col. 4, line 65 –col. 5, line 7. Therefore, it would have been obvious to include virtual resources into the resources represented by the parent resource objects of Abbondanzio. One of ordinary skill in the art would have been motivated to combine the teachings of Abbondanzio and Sankaranarayan because this would have provided resource management and allocation to different users/applications (col. 2, lines 60-67, col. 4, lines 38-64).

As to claim 2, Abbondanzio teaches determining whether the parent resource object exists within the global resource namespace (obtain information about parent bus, col. 5, lines 56-62).

As to claim 3, Abbondanzio teaches determining whether the parent resource object is available (determine whether resource available in parent bus resource pool, col. 6, lines 30-36).

As to claim 4, Abbondanzio teaches determining whether conflicts exist that would prevent the child resource object from being attached to the parent resource object (determine conflict free range, col. 6, lines 1-29).

As to claims 5, 6, Abbondanzio as modified by Sankaranarayan teaches (Sankaranarayan) calculating resource requirements of a child resource object / device (bandwidth requirement, col. 4, line 65 – col. 5, line 7) and determining whether sufficient parent resource is available to satisfy the requirements of the child resource object (determine if all requests met would exceed the available bandwidth, col. 4, line 65 – col. 5, line 7).

As to claims 7-12, these are program product claims of claims 1-6, respective, thus note claims 1-6, respectively, for discussions.

10.   Applicant's arguments filed 3/21/2005 have been fully considered but they are not persuasive.

As to the amended parent resource object representing physical and virtual resources, this is now met by the combination of Abbondanzio who teaches physical resources and Sankaranarayan who teaches virtual resources (bandwidth) in addition to physical resources (hardware device, ports). See discussion of claim 1 for detail.

11.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

12.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sue Lao whose telephone number is (571) 272-3764. A

voice mail service is also available at this number. The examiner's supervisor, SPE Meng-Ai An, can be reached on (571) 272 3756. The examiner can normally be reached on Monday - Friday, from 9AM to 5PM. The fax phone number for the organization where this application or proceeding is assigned is (703) 872 9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

June 6, 2005

SUE LAO
PRIMARY EXAMINER